

## EAST Search History

| Ref # | Hits  | Search Query  | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|-------|---|---|------------------|---------|------------------|
| S2    | 0     | ((("6057234") or ("6171961B1") or ("6436827B1") or ("6225218B1")).PN.) and conductive and barrier and insulat\$4 and aluminum and (heat or anneal)                | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR               | OFF     | 2006/03/01 11:21 |
| S3    | 10037 | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR               | OFF     | 2004/10/22 07:46 |
| S4    | 2357  | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR               | OFF     | 2004/10/22 07:47 |
| S5    | 993   | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet and lamp   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR               | OFF     | 2004/10/22 07:47 |
| S6    | 654   | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet and lamp and laser   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR               | OFF     | 2004/10/22 07:47 |
| S7    | 0     | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet and lamp and laser and irradiation                           | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR               | OFF     | 2004/10/22 07:47 |
| S8    | 0     | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet and lamp and laser and irradiat\$4                           | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR               | OFF     | 2004/10/22 07:48 |
| S9    | 467   | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet and lamp and laser and irradiat\$4                           | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR               | OFF     | 2004/10/22 07:49 |
| S10   | 124   | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet and lamp and laser and irradiat\$4 and pulse and oscillat\$4 | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR               | OFF     | 2004/10/22 07:49 |

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|     |    |   |   |    |     |                  |
|-----|----|---|---|----|-----|------------------|
| S11 | 58 | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet and lamp and laser and irradiat\$4 and pulse and oscillat\$4 and (acryl or polymide or polyamide or polyimideamide or epoxyacryl or benzocyclobutene or parylene or flare)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2004/10/22 07:50 |
| S12 | 24 | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet and lamp and laser and irradiat\$4 and pulse and oscillat\$4 and (acryl or polymide or polyamide or polyimideamide or epoxyacryl or benzocyclobutene or parylene or flare) and silicon and oxygen and hydrogen and fluorine  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2004/10/22 07:52 |
| S13 | 24 | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet and lamp and laser and irradiat\$4 and pulse and oscillat\$4 and (acryl or polymide or polyamide or polyimideamide or epoxyacryl or benzocyclobutene or parylene or flare) and silicon and oxygen and hydrogen and fluorine and (titanium or tantalum or tungsten)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2004/10/22 07:52 |
| S14 | 24 | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet and lamp and laser and irradiat\$4 and pulse and oscillat\$4 and (acryl or polymide or polyamide or polyimideamide or epoxyacryl or benzocyclobutene or parylene or flare) and silicon and oxygen and hydrogen and fluorine and (titanium or tantalum or tungsten) and (germanium or tin or gallium or zinc or lead or indium or scantium) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2004/10/22 07:53 |

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|     |    |   |   |    |     |                  |
|-----|----|---|---|----|-----|------------------|
| S15 | 24 | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet and lamp and laser and irradiat\$4 and pulse and oscillat\$4 and (acryl or polymide or polyamide or polyimidamide or epoxyacryl or benzocyclobutene or parylene or flare) and silicon and oxygen and hydrogen and fluorine and (titanium or tantalum or tungsten) and (germanium or tin or gallium or zinc or lead or indium or scandium)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2004/10/22 07:53 |
| S16 | 19 | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet and lamp and laser and irradiat\$4 and pulse and oscillat\$4 and (acryl or polymide or polyamide or polyimidamide or epoxyacryl or benzocyclobutene or parylene or flare) and silicon and oxygen and hydrogen and fluorine and (titanium or tantalum or tungsten) and (germanium or tin or gallium or zinc or lead or indium or scandium) and nitride  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2004/10/22 07:57 |
| S17 | 19 | conductive and barrier and insulat\$4 and aluminum and (heat or anneal) and pressure and ultraviolet and lamp and laser and irradiat\$4 and pulse and oscillat\$4 and (acryl or polymide or polyamide or polyimidamide or epoxyacryl or benzocyclobutene or parylene or flare) and silicon and oxygen and hydrogen and fluorine and (titanium or tantalum or tungsten) and (germanium or tin or gallium or zinc or lead or indium or scandium) and nitride and (via or hole or open\$4 or trench) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2004/10/22 07:58 |

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|     |      |  |   |    |     |                  |
|-----|------|--|---|----|-----|------------------|
| S18 | 39   | ((("4502210") or ("5169803") or ("5283206") or ("5512512") or ("5534463") or ("5589713") or ("5641993") or ("5665659") or ("5719446") or ("5723367") or ("5747360") or ("5789317") or ("5830786") or ("5843843") or ("5844318") or ("5846877") or ("5869902") or ("5880023") or ("5913146") or ("6001727") or ("6194315B1"))).PN. or ((2001/0011727A1) or (2002/0197866A1)).CCLS.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/04/20 11:20 |
| S19 | 0    | S18 and (organic or acrylic or polyamide or polyimide or "epoxy acrylic" or benzocyclobutene or parylene or flare) and (open or via or trench or hole) and (conductive or nitride or barrier) and aluminum, and (flat\$4 or smooth) and (heat near treatment) and pressure   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/04/20 11:25 |
| S20 | 2    | S18 and (organic or acrylic or polyamide or polyimide or "epoxy acrylic" or benzocyclobutene or parylene or flare) and (open or via or trench or hole) and (conductive or nitride or barrier) and aluminum and (flat\$4 or smooth) and (heat near treatment) and pressure  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/04/20 11:25 |
| S21 | 2    | ((("6057234") or ("6171961B1") or ("6436827B1") or ("6225218B1"))).PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2005/05/16 09:43 |
| S22 | 3166 | (organic or carbon or acryl or polyimide or polyamide or polyimide or epoxyacryl or benzocyclobutene or parylene or flare) and (open or via or hole or trench) and (conduct\$4 or metal) and insulat\$4 and aluminum and (flatten\$4 or pattern\$4 or planariz\$4) and (heat\$4 or thermal or anneal\$4) and chamber and lamp and (silicon or hydrogen or oxygen or fluorine) and (titanium or tantalum or tungsten or silicon) and (germanium or tin gallium or zinc or lead or indium or scandium) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/12/21 16:20 |

## EAST Search History

|     |      |  |   |    |    |                  |
|-----|------|--|---|----|----|------------------|
| S23 | 2942 | (organic or carbon or acryl or polyimide or polyamide or polyimidamide or epoxyacryl or benzocyclobutene or parylene or flare) and (open or via or hole or trench) and (conduct\$4 or metal) and insulat\$4 and aluminum and (flatten\$4 or pattern\$4 or planariz\$4) and (heat\$4 or thermal or anneal\$4) and chamber and lamp and (silicon or hydrogen or oxygen or fluorine) and (titanium or tantalum or tungsten or silicon) and (germanium or tin gallium or zinc or lead or indium or scandium) and pressure  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/21 16:21 |
| S24 | 470  | (organic or carbon or acryl or polyimide or polyamide or polyimidamide or epoxyacryl or benzocyclobutene or parylene or flare) and (open or via or hole or trench) and (conduct\$4 or metal) and insulat\$4 and aluminum and (flatten\$4 or pattern\$4 or planariz\$4) and (heat\$4 or thermal or anneal\$4) and chamber and lamp and (silicon or hydrogen or oxygen or fluorine) and (titanium or tantalum or tungsten or silicon) and (germanium or tin gallium or zinc or lead or indium or scandium) and pressure and (semiconductor or wafer or substrate) and atmosphere and laser and irradiat\$4 and oscillat\$4 and nitride | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/12/21 16:24 |
| S25 | 770  | ("SOG" or spin) and (acryl or benzocyclobutene or parylene or flare or polymide) and (open\$3 or via or hole or trench) and (barrier or titanium or "titanium nitride" or tungsten or "tungsten nitride" or tantalum or polysilicon or "tantalum nitride") and (aluminum or copper) and (germanium or tin or gallium or zinc or lead or indium or scandium) and (laser near irradiat\$4 or "RTA")  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/03/01 14:22 |

## EAST Search History

|     |     |   |   |    |    |                  |
|-----|-----|---|---|----|----|------------------|
| S26 | 413 | ("SOG" or spin) and (acryl or benzocyclobutene or parylene or flare or polyimide) and (open\$3 or via or hole or trench) and (barrier or titanium or "titanium nitride" or tungsten or "tungsten nitride" or tantalum or polysilicon or "tantalum nitride") and (aluminum or copper) and (germanium or tin or gallium or zinc or lead or indium or scandium) and (laser near irradiat\$4 or "RTA") and ultraviolet and heat and silicon and oxygen                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/03/01 14:25 |
| S27 | 193 | ("SOG" or spin) and (acryl or benzocyclobutene or parylene or flare or polyimide) and (open\$3 or via or hole or trench) and (barrier or titanium or "titanium nitride" or tungsten or "tungsten nitride" or tantalum or polysilicon or "tantalum nitride") and (aluminum or copper) and (germanium or tin or gallium or zinc or lead or indium or scandium) and (laser near irradiat\$4 or "RTA") and ultraviolet and heat and silicon and oxygen and fluorine                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/03/01 14:26 |
| S28 | 180 | ("SOG" or spin) and (acryl or benzocyclobutene or parylene or flare or polyimide) and (open\$3 or via or hole or trench) and (barrier or titanium or "titanium nitride" or tungsten or "tungsten nitride" or tantalum or polysilicon or "tantalum nitride") and (aluminum or copper) and (germanium or tin or gallium or zinc or lead or indium or scandium) and (laser near irradiat\$4 or "RTA") and ultraviolet and heat and silicon and oxygen and fluorine and (argon or nitrogen) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/03/01 14:27 |

## EAST Search History

|     |      |  |  |    |    |                  |
|-----|------|--|--|----|----|------------------|
| S29 | 105  | ("SOG" or spin) and (acryl or benzocyclobutene or parylene or flare or polyimide) and (open\$3 or via or hole or trench) and (barrier or titanium or "titanium nitride" or tungsten or "tungsten nitride" or tantalum or polysilicon or "tantalum nitride") and (aluminum or copper) and (germanium or tin or gallium or zinc or lead or indium or scandium) and (laser near irradiat\$4 or "RTA") and ultraviolet and heat and silicon and oxygen and fluorine and (argon or nitrogen) and lamp                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB          | OR | ON | 2006/03/01 14:27 |
| S30 | 57   | ("SOG" or spin) and (acryl or benzocyclobutene or parylene or flare or polyimide) and (open\$3 or via or hole or trench) and (barrier or titanium or "titanium nitride" or tungsten or "tungsten nitride" or tantalum or polysilicon or "tantalum nitride") and (aluminum or copper) and (germanium or tin or gallium or zinc or lead or indium or scandium) and (laser near irradiat\$4 or "RTA") and ultraviolet and heat and silicon and oxygen and fluorine and (argon or nitrogen) and lamp and oscillation | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB          | OR | ON | 2006/03/01 14:27 |
| S31 | 5481 | (organic near( insulat\$4 or dielectric or oxide) near4 film)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/14 12:12 |
| S32 | 694  | (open\$3 or via or hole or trench) near9 (organic near( insulat\$4 or dielectric or oxide) near4 film)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/14 12:13 |
| S33 | 456  | (open\$3 or via or hole or trench) near9 (organic near( insulat\$4 or dielectric or oxide) near4 film) and ((barrier or conduct\$4 or metal or polysilicon) near9 (insulat\$4 or dielectric or oxide))   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/14 12:18 |

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|     |      |  |  |    |    |                  |
|-----|------|--|--|----|----|------------------|
| S34 | 189  | (open\$3 or via or hole or trench) near9 (organic near(insulat\$4 or dielectric or oxide) near4 film) and ((barrier or conduct\$4 or metal) near9 (insulat\$4 or dielectric or oxide)) and (aluminum near9 (barrier or conduct\$4 or metal))                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/14 12:19 |
| S35 | 10   | (open\$3 or via or hole or trench) near9 (organic near(insulat\$4 or dielectric or oxide) near4 film) and ((barrier or conduct\$4 or metal) near9 (insulat\$4 or dielectric or oxide)) and ((anneal or heat) near9(aluminum near9 (barrier or conduct\$4 or metal))) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/14 14:02 |
| S36 | 3771 | (conductive or metal or polysilicon) near9 (organic near film)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB          | OR | ON | 2006/12/21 07:52 |
| S37 | 101  | (conductive or metal or polysilicon) near9 (organic near film) and ((nitride near film) near9 (organic near film))   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB          | OR | ON | 2006/12/21 07:54 |
| S38 | 67   | (conductive or metal or polysilicon) near9 (organic near film) and ((nitride near film) near9 (organic near film)) and ((conductive or metal or polysilicon) near9 (nitride near film))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB          | OR | ON | 2006/12/21 07:55 |
| S39 | 64   | (conductive or metal or polysilicon) near9 (organic near film) and ((nitride near film) near9 (organic near film)) and ((conductive or metal or polysilicon) near9 (nitride near film)) and (semiconductor or substrate or wafer)                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB          | OR | ON | 2006/12/21 10:37 |
| S40 | 0    | (conductive or metal or polysilicon) near9 (organic near film) and ((nitride near film) near9 (organic near film)) and ((conductive or metal or polysilicon) near9 (nitride near film)) and (semiconductor or substrate or wafer) and (438/597. ccls.)               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB          | OR | ON | 2006/12/21 10:39 |



## EAST Search History

|     |   |   |   |    |    |                  |
|-----|---|---|---|----|----|------------------|
| S41 | 0 | (conductive or metal or polysilicon) near9 (organic near film) and ((nitride near film) near9 (organic near film)) and ((conductive or metal or polysilicon) near9 (nitride near film)) and (semiconductor or substrate or wafer) and (438/584.ccls.) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/12/21 10:39 |
|-----|---|---|---|----|----|------------------|